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PRACTICAL OBSERVATIONS

ON THE USE OF THE

INDIAN BAEL OR BELA,

IN

DYSENTERY, DIARRHŒA, &c.

BY A LATE

MEMBER OF THE PROFESSION,  
BENGAL PRESIDENCY.

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[The following remarks may be interesting as a brief notice to those of the Profession who have not used the Bael—a medicine approximating to the class of Vegetable Astringents, but possessing, in addition, peculiar properties which are strongly recommended to their more extensive consideration and employment.]

# PRACTICAL OBSERVATIONS

ON THE USE OF THE

## INDIAN BAEL OR BELA.

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AMONG the many new remedies which have from time to time been brought before the notice of the Profession, few have proved so effectual, and so thoroughly answered its expectations, as the Bael.

Having been for many years practically acquainted with its value, I am induced, in order that it may be better known in this country, to publish the following remarks, and I think I am warranted in stating it to be the remedy that may with confidence be relied on in those malignant forms of Diarrhœa, Dysentery, and affections of the mucous membrane, which have so long baffled the Profession; and that it will, ere long, occupy a prominent position in the Pharmacopœia. To our Indian brethren we must ever be thankful, for it was through them our attention was first drawn to its wonderful powers; by them it has for years been used as their only remedy in this class of disease, and from the severe trial it has now had in this country, there can be no doubt that the use of Bael is the most powerful and certain means known of arresting these complaints.

It is now only a few years ago that the Bael was imported into England by Mr. Gould, of Oxford-street, and by him

brought before the Medical Profession. Many physicians and surgeons of high standing have since prescribed it, and in almost every instance with the most perfect success; and although at present not generally known, I feel certain ere long its use will become universal; and such is my confidence in it, that, by its general adoption, I am fully persuaded it will exercise a great power over these diseases, and that ultimately they will become more rare and even of a milder form.

Botanical descriptions of the tree which yields the Bael fruit will be found in the works of Ainslie, Persoon, Roxburgh, Sir W. Jones, Lindley, Royle, and others, who also remark upon its medical effects.

It is the *Ægle*, or *Crataeva Marmelos* of Linnæus, and although commonly termed the Bengal Quince the name is incorrect, as it is one of the *Aurantiaceæ* or, Orange tribe; and Lindley says, in speaking of it, that the fruit a little unripe is given with great advantage in Diarrhœa and Dysentrey. See Lindley's *Vegetable Kingdom*, Order clxx. A full botanical account of it is given also in the *Transactions* of the Medical and Physical Society of Calcutta, vol. i., p. 130.

It grows abundantly in the country around Bengal and other parts of India, where the juice of the unripe fruit is the part used for Dysentery; but as we cannot here obtain the fresh juice, the whole of the fruit is dried and exported to England, and from the dried fruit is prepared the medical decoction.

The examination of the Bael chemically shews it to contain tannin, either pure or in combination, a large amount of a peculiar mucilage, a concrete essential oil, and an aromatic as well as a bitter principle, and in one or other of these there appears to exist either a sedative or narcotic property. The smell and taste of the decoction are aromatic and agreeable, slightly bitter and astringent, gummy and mucilaginous, something like a mixture of a decoction of quince and pomegranate, but bearing an aroma peculiar to itself. It possesses, however,

the important property different from most vegetable astringents, of not subsequently confining the bowels, but appears rather to strengthen and regulate their action. There is also imported a preparation of the ripe fruit, the Bael preserve, or jelly, which has an opposite effect from the unripe fruit, being a gentle but effectual laxative. It is eaten at meals like marmalade, every morning, acting moderately on the bowels; and will be found to supersede lenitive electuary, and all other medicines of this kind, possessing a more agreeable flavour and acting with greater certainty. This is a most valuable remedy for ladies, many of whom suffer from habitual costiveness, which purgatives have a tendency to increase rather than relieve; by continual use of the preserve it restores the bowels to a perfectly normal condition, and imparts tone to the system.

*Tannin* also, alone and in combination, has been highly recommended by Professor Alison, and the value of *oxide of silver* in intestinal fluxes as well as in gastric disorders insisted upon by Sir James Eyre; so that it has been urged by many that there is no need of a medicine like the Bael, for that Dysentery can either be cured without it, or an artificial Bael compounded of Tannin and mucilaginous ingredients.

As far as I have observed, however, I cannot say I have found this to be the case. The Bael, like many other vegetable medicines, possesses properties peculiar to itself, and does not owe its efficacy to the mere presence of tannin in its composition; what these precise properties may be, is at present out of our research, but they certainly impart to it somewhat of the character of a specific.

It is the same with other drugs whose active principles have been extracted by chemistry, but which, thus isolated, produce dissimilar effects from the original natural compound.

This is strikingly the case with opium, whose place its alkaloid morphia cannot be made to supply by any artificial combination whatsoever; and the delicate distinctions between the



effects of the foetid gums, and of many other substances, between which there is very little appreciable difference, are instances of these peculiar and special characters of natural productions. Moreover, I deny that it is to the mere property of astringency, or to the mere presence of tannin, that are to be ascribed the curative virtues of this class of drugs, for neither are the most powerful astringents the best medicines to give in Dysentery, nor are those fruits found to be the best which yield the largest amount of tannin. The astringency of the Bael is slight, and the quantity of tannin it contains inconsiderable; but its action is no less certain than that of much more powerful astringents. It is also safer in its operation, agreeable to the taste, and does not constipate.

The Bael has been prepared in a number of ways, and may be had in dried chips or powdered; it is also made into a wine and an extract; but by far the best formula I have seen in this country is the *Liquor Belæ*, or concentrated decoction; prepared by Mr. Gould, of Oxford-street, who, by a process of his own, succeeds in retaining all the active principles of the fresh fruit. It is this preparation that I have recommended always to be used, particularly in cases of Chronic Diarrhoea, Dysentery, and irritation of the mucous membrane, and, by perseverance in its use, the worst case, I believe, may be effectually cured. In acute Dysentery and Diarrhoea, one tablespoonful three times a-day should be taken; after a few days gradually increased to two, and its use continued till the symptoms have disappeared. In Chronic Diarrhoea the effect of the Bael may perhaps be even more striking, particularly when administered after the successive failure of other medicines; for it is in this form of disease particularly that our treatment most frequently disappoints us and our remedies most frequently fail. In that uncertain, irregular state of the bowels so constantly met with, where the looseness is scarcely sufficient to constitute Diarrhoea, and yet the motions are never of the proper consistence; when

ordinarily there exists no pain, but yet even a cup of warm tea or coffee is sufficient immediately to produce severe tormina and desire to go to stool; when the irregularity and uncertainty of the bowels is productive of the greatest distress and inconvenience to the patient, while its long continuance is sure to lay the foundation for more serious mischief; in this state of things, I am not saying too much to assert that there is no remedy equal to an habitual use of the Bael; and if we consider what our treatment ought to be in such cases, we shall find it supplies us with exactly what we require in a natural form.

In English Cholera it must be taken very freely, more as a dietetic drink than a medicine, mixed with a little wine or brandy, preceded by castor-oil or calomel, as the peculiar features of the case may indicate, and combined with diluted sulphuric acid and opium. It is not necessary for me to particularise the numerous cases in which a relaxed state of the bowels occurs as a complication of other disorders, and not as a primary disease.

In concluding my remarks, I cannot refrain from observing that those who would take a dose of the Bael and be cured will be disappointed; for its action, although certain, is not violent or rapid like the purgatives and common astringents; but rather I would compare it to a mild tonic,—its action at first almost imperceptible (unless in large doses), gradually increasing in power, restoring the bowels to a healthy condition, and, if persevered in, imparting tone and strength to the constitution. When all other means have been tried without effect, and the Pharmacopœia vainly ransacked for relief, the physician will be pleased to meet even with a useful palliative (should the case have proceeded too far to admit of cure); and in other cases, if given in time and in sufficient doses, it has never disappointed me in its results.

MR. GOULD, in bringing before the public the preceding experience of an eminent member of the Profession, who practised for many years in the Bombay Presidency, but who has now retired and returned to England, begs to submit a few extracts from some of the most eminent of Indian practitioners, and also a few extracts from numerous testimonials which have fallen under his own experience.

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*Extract "from Practical Observations on the Nature and Treatment of the Diseases of Europeans on their return from Tropical Climates." By James Ranald Martin, F.R.S., Surgeon, Bengal Army, retired; late Presidency-surgeon, and Surgeon to the Native Hospital, Calcutta.*

WITHIN these few years the Bale, or Bael, fruit of Bengal, has been held to be very efficacious in the treatment of Chronic Dysentery and Diarrhœa. This fruit, incorrectly termed the Bengal quince, for in reality it is of the orange tribe, is imported into England in its unripe dried state, and also in the state of sugared preserve made of the ripe fruit. The bark of the root, and the stems of the fresh leaves, are all said to contain medicinal properties. "As to the Bael fruit," says a professional friend in Calcutta, "I consider it the most certain remedy we possess for chronic Dysentery and Diarrhœa. I have frequently seen it arrest the progress of these diseases in twenty-four hours, after all other medical treatment had failed. On what the curative property of the fruit depends I know not; it is certainly not astringent to the taste, or, at all events, very slightly so. I am inclined to believe that much of its efficacy may reside in the thick mucilage which surrounds the seeds of the fruit. A singular property of the fruit is this, that it does not merely restrain undue action of the bowels, as in Diarrhœa and Dysentery, but also in cases of obstinate habitual constipation acts as a mild and certain laxative. It may be said in all cases to regulate the bowels."



I am indebted to Mr. Henry Pollock for the following account of his examination of the preserved and ripe fruit, as imported in its dried and preserved forms from Calcutta, by Mr. Gould, of Oxford-street, and by others:—"The pulp and the dried shell of the fruit do not appear to me to differ chemically in any respect, except as to quantity. They both contain—1, tannic acid; 2, a concrete essential oil; 3, a bitter principle, which is not precipitated by tribasic acetate of lead, and a vegetable acid. The pulp, as I received it, also contained a considerable quantity of sugar, in which it was preserved. All three of the substances I have mentioned exist in the largest quantity in the dry rind. There is most acid in the pulp."

Mr. Gould states that in the fruit, as imported by him, the mucilage exists in about the proportion of twenty per cent.

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DR. STEPHEN H. WARD, M.D. Lond., L.R.C.P., Physician to the Seamen's Hospital, H.M.S. Dreadnought, in detailing in the *Lancet* the cases which were under his care, mentioned several in which the most marked and happy effects were obtained from the Bael; and in conclusion says:—"Of all the vegetable astringents, I have found *none equal* to a strong decoction of the rind of the *Bael Fruit* of Bengal, and adds that testimony to its value is borne out by the experience of Drs. Royle, J. Hooker, Wight, and R. Martin, and others. (*Vide Lancet*, Nov. 14th, 1847, vol. ii., pages 487-9.)

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Dr. A. GRANT says:—"With reference to my own experience in the use of the Bael, I may state that I have been in the habit of recommending the sherbet. Many persons in Bengal suffer, especially during the rainy season, from attacks of irregularity of the bowels, periods of looseness alternating with periods of constipation; in such cases of the system it acts admirably, in the first instance as an astringent, and in the second as an aperient; it seems in both these opposite conditions to stimulate the mucous membrane to more natural and regular action, combining with the ingesta and aiding healthy assimilation. I have also given it with very satisfactory results to persons delicate and of weakly habit, subject to excessive mucous Diarrhoea.

But I have chiefly employed it in cases of Chronic Dysentery and Diarrhoea among native prisoners in our Bengal jails.

Within the last two months, I have had treated under my observation fifteen cases of sub-acute Dysentery, and four of Diarrhoea, in natives, with uniform success by means of the extract of Bael, prepared from the immature and the ripe fruit.

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Dr. DUNCAN STEWART, in speaking of it, says that he has for years past made use of the Bael, both in his private and hospital practice, and he uses it not only as an astringent in disease, but also as a preventive of Diarrhoea in persons subject to that complaint.

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Dr. J. JACKSON also states that he has found the Bael successful in the more chronic forms of Dysentery, when the stools are frequent and bloody.

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Dr. CHUCKERBITTY, of the Medical College Hospital, has also frequently prescribed it in Chronic Dysentery, and in one instance where no other remedy had any effect.

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In submitting the following testimonials, Mr. Gould does not feel at liberty to publish the names of the parties sending them; the original testimonials can, however, be seen upon personal application.

Extract of a letter dated Calcutta, 12th May, 1857:

I think I have occasionally mentioned to you the wonderful effects of a fruit here called Bel (pronounced Bale), in cases of Dysentery and Diarrhoea, and, indeed, of all irregularity of the bowels, for it acts

either as a laxative or astringent, and seems simply to put every thing right inside.

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The Lady of a Captain in the Indian army returned to England, in writing to Mr. Gould, informs him that her only son was perfectly cured by the use of the Bael, after his case had been considered hopeless by the Medical Profession.

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A Lady, writing from Dieppe for a fresh supply of the Liquor Belæ, says, it is the only remedy from which she finds any benefit during attacks of Dysentery.

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Mary-place, Edinburgh, Oct. 8, 1852.

DEAR SIR,—The supply of Indian Bael I brought with me here is nearly exhausted, as both Mrs. P. and myself have had an attack of Diarrhœa, and in each case this both valuable and palatable remedy has proved speedily efficacious, and £1,000 would not induce me to travel without some of it.

The same gentleman, in writing again, adds:—I also have sent some to the Crimea, and the colonel of the regiment said he took some himself and administered it to two of his men, and this cured them when every other remedy failed.

W. P.

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Cannon-street West, August, 14, 1856.

SIR,—I have just received a letter from my sister, begging me to send off at once a bottle of the Liquor Bael. My mother has taken it several times for violent Diarrhœa, and has always found it so effective that my sister is anxious to have some.

Yours obediently, F. R. M. G.

Another officer, returned from India, on hearing that Mr. Gould imported the Bael, kindly wrote him a letter containing a long account of its growth and method of preparing it, and says:—

I hope with all my heart that you will make your fortune by Indian Bael. The world does not produce its equal as a medicine, yet hardly anyone knows anything about it. I showed some to the doctor of my regiment, and he tried it in his worst cases, and I think all got well from its use, except those who were too far gone. He also adds:—Mr. D., one of Lord Canning's council, told me that Bael had kept him alive for years, as it always kept the disease (Dysentery) under.

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Mr. Gould begs to inform the public that he is constantly receiving fresh supplies of the various preparations of Bael from his agents in Calcutta.

198, OXFORD STREET,

*Corner of Orchard Street, Portman Square, London.*